



**Transportation and
Public Works**

**Department of Transportation
and Public Works**

**2002 Customer Satisfaction Survey
Provincial Highway System**

Highlights Report

106-06141/



The 2002 Customer Satisfaction Survey - Provincial Highway System was conducted by the Marketing Research Centre for the Department of Transportation and Public Works.

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2002 Customer Satisfaction Survey - Provincial Highway System

The Nova Scotia Department of Transportation and Public Works conducts a Customer Satisfaction Survey to determine and evaluate the public's satisfaction with the provincial highway system. It is also used to determine the department's effectiveness in providing services on the provincial highway system. This report highlights the survey findings¹.

The 2002 Customer Satisfaction Survey is based on telephone interviews with 2068 residents of Nova Scotia, 16 years of age and older. This sample is segmented by four provincial transportation districts:

Central District

Halifax and Hants Counties.

Eastern District

Antigonish, Guysborough, Inverness, Victoria, Cape Breton, and Richmond Counties.

Northern District

Pictou, Cumberland, and Colchester Counties.

Western District

Kings, Annapolis, Digby, Yarmouth, Shelburne, Lunenburg, and Queens counties.

This allows for a comparison and analysis at the district level.

A random sample of 2,068 respondents provides a sampling error of plus or minus 2.15%, with a 95% confidence level. The margin of error for each of the four districts is shown in the following table.

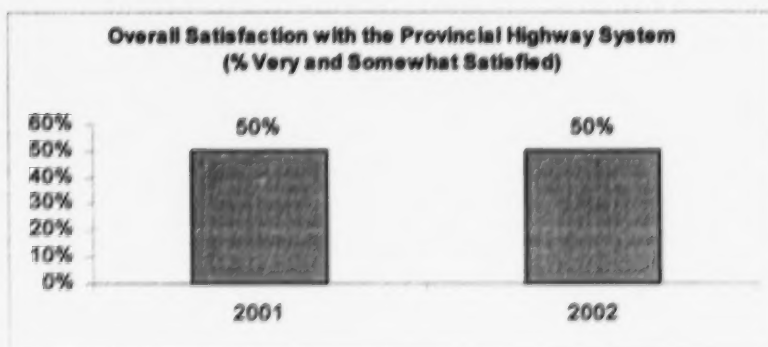
¹ As the data has been weighted to reflect the actual population by district, and percentages have been rounded to the nearest whole number, not all tables will add to 100%.

District	Population (over 15)	Sample Size	Margin of Error (95% confidence level)
Central	325,475	518	± 4.3
Eastern	144,645	517	± 4.3
Western	167,020	517	± 4.3
Northern	105,830	516	± 4.3
Overall	753,451	2,068	± 2.15

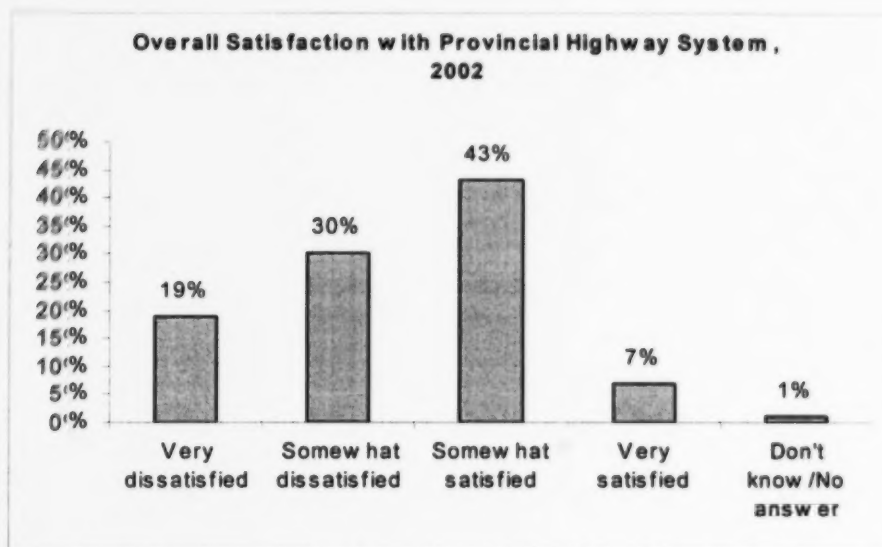
Overall Satisfaction

Overall satisfaction with the provincial highway system is a measurement of all the variables that make up customer satisfaction. There are many variables that can influence the way people respond, for example, the number of motor vehicle accidents that occur in the winter season.

Overall, Nova Scotians were generally satisfied with the provincial highway system. Half of all residents were either "somewhat satisfied" or "very satisfied" with the provincial highway system.



There was no change in the satisfaction that Nova Scotia residents had for the provincial highway system in 2002 compared to 2001.



Residents in three of the four districts indicated lower satisfaction as compared with the results from the 2001 survey. Central Nova Scotia had an increase in satisfaction from 2001 (48%) to 2002 (54%). Central Nova Scotia expressed the highest level of satisfaction (54%), while Northern Nova Scotia expressed the lowest amount of satisfaction (46%).

The Central District was the only district with a significant increase² in satisfaction from 2001 to 2002. Residents, in the Central District, indicated a satisfaction mean³ of 2.37 in 2001 and 2.45 in 2002. There were no significant differences in the other three districts, with regard to satisfaction.

² This result is reliable, or statistically reliable at the 95% confidence level.

³ Scale: 1 (very dissatisfied), 2 (somewhat dissatisfied), 3 (somewhat satisfied), 4 (very satisfied).

District	Central		Northern		Eastern		Western	
Year	2001 %	2002 %	2001 %	2002 %	2001 %	2002 %	2001 %	2002 %
Very satisfied	8	8	9	7	7	6	6	8
Somewhat satisfied	40	46	41	39	47	41	47	43
Somewhat dissatisfied	27	29	28	31	24	33	29	28
Very dissatisfied	21	17	21	22	22	20	17	20

Why are Nova Scotians dissatisfied?

Nova Scotians were dissatisfied for various reasons. The most frequent responses were:

- Potholes on the roads
- Roads are poorly paved/maintained
- Poor repair/condition

These responses were also the most frequent responses, in the 2001 Customer Satisfaction Survey.

Highway Services - Rating the Department's Performance

To obtain feedback on how the department performs in providing highway services, we asked a number of questions about the importance and the quality of these services.

How important are highway services to Nova Scotians?

Nova Scotians felt that every highway service was important. The level of importance⁴ for all highway services has increased since the 2001 Customer Satisfaction Survey.

⁴ These are based on mean scores for importance ratings.

Significance Testing

Importance	2002	2001	Change
Amount of four lane divided highways	3.65	3.43	0.22
Filling Cracks and potholes	3.89	3.63	0.26
Resurfacing sections of the highway	3.81	3.52	0.29
Ice and snow removal during a storm	3.89	3.65	0.24
Completeness of a cleanup after a storm	3.88	3.60	0.28
Highway design, including curves, grading and width	3.73	3.44	0.29
Number of passing lanes	3.64	3.40	0.24
Length of passing lanes	3.70	3.43	0.27
All pavement markings	3.87	3.64	0.23
Roadside brush and tree clearing	3.49	3.28	0.21
Helpfulness of non-commercial highway signs such as speed limit signs, road exit signs and so forth	3.75	3.53	0.22
Amount of non-commercial highway signs such as speed limit signs, road exit signs and so forth	3.68	3.43	0.25
Maintenance of non-commercial highway signs such as speed limit signs, road exit signs and so forth	3.74	3.45	0.29
Width of highway shoulders	3.73	3.46	0.27
Surface condition of highway shoulders	3.72	3.48	0.24
Grading and dust control of gravel	3.57	3.35	0.22
Ditches and culverts	3.62	3.31	0.31
Bridges	3.78	3.55	0.23

*Scale: 1 (very unimportant), 2 (somewhat unimportant), 3 (somewhat important), 4 (very important).

All services had a significant increase from 2001 to 2002, with regard to importance.

Importance of Highway Services

Factor	Somewhat important 2001 %	Somewhat important 2002 %	Very important 2001 %	Very important 2002 %
Amount of four-lane divided highways	28	21	57	71
Filling cracks and potholes	12	7	77	91
Resurfacing sections of the highways	23	16	66	82
Ice/snow removal during a storm	13	8	77	90
Completeness of the clean up (ice/snow) after a storm	15	10	74	89
Highway design including curves, grading and width	30	21	56	75
Number of passing lanes	33	25	53	69
Length of passing lanes	30	22	56	73
All pavement markings including yellow/white lines	14	10	76	88
Roadside brush/tree clearing	37	32	46	59
Helpfulness of non-commercial highway signs such as speed limit signs, road exit signs and so forth	24	19	66	78
Amount of non-commercial highway signs such as speed limit signs, road exit signs and so forth	31	22	56	73
Maintenance of non-commercial highway signs such as speed limit signs, road exit signs and so forth	30	19	59	78
Width of highway shoulders	29	22	59	75
Surface condition of highway shoulders	26	21	62	76
Grading and dust control of gravel roads	37	28	47	61
Ditches and culverts	39	28	45	66
Bridges	24	16	67	81

How do Nova Scotians rate the quality of highway services?

Most residents rated the highway services as "good" or "excellent".

Significance Testing

Quality	2002	2001	Change
Amount of four lane divided highways	2.39	2.26	0.13
Filling Cracks and potholes	1.9	1.84	0.06
Resurfacing sections of the highway	2.21	2.13	0.08
Ice and snow removal during a storm	2.52	2.62	-0.10
Completeness of a cleanup after a storm	2.61	2.6	0.01
Highway design, including curves, grading and width	2.64	2.61	0.03
Number of passing lanes	2.42	2.35	0.07
Length of passing lanes	2.46	2.36	0.10
All pavement markings	2.73	2.58	0.15
Roadside brush and tree clearing	2.53	2.62	-0.09
Helpfulness of non-commercial highway signs such as speed limit signs, road exit signs and so forth	2.78	2.76	0.02
Amount of non-commercial highway signs such as speed limit signs, road exit signs and so forth	2.74	2.69	0.05
Maintenance of non-commercial highway signs such as speed limit signs, road exit signs and so forth	2.76	2.73	0.03
Width of highway shoulders	2.45	2.41	0.04
Surface condition of highway shoulders	2.39	2.38	0.01
Grading and dust control of gravel	2.35	2.59	-0.24
Ditches and culverts	2.5	2.59	-0.09
Bridges	2.6	2.7	-0.10

*Significant differences are bolded.

**Scale: 1 (poor), 2 (only fair), 3 (good), 4 (excellent).

The services that showed significant increases⁵ in perceived quality between 2001 and 2002 were:

- All pavement markings including yellow and white lines
- Amount of four-lane divided highways
- Length of passing lanes
- Resurfacing sections of the highways
- Number of passing lanes

⁵ In ranked order, based on mean scores.

The five services that showed a significant decrease in perceived quality were:

- Grading and dust control of gravel roads
- Bridges
- Ice and snow removal during a storm
- Roadside brush and tree clearing
- Ditches and culverts

Those services rated highest among residents were:

- Helpfulness of non commercial signs
- Maintenance of non commercial signs
- Amount of non-commercial signs
- All pavement markings
- Highway design

Those services receiving the lowest ratings were:

- Filling in cracks and potholes
- Resurfacing sections of the highway
- Grading/dust control of gravel roads
- Amount of four-lane highways
- Surface condition of highway shoulders

Quality of highway services

Factor	Good 2001 %	Good 2002 %	Excellent 2001 %	Excellent 2002 %
Amount of four-lane divided highways	33	41	5	6
Filling cracks and potholes	20	24	3	3
Resurfacing sections of the highway	31	36	3	5
Ice/snow removal during a storm	48	49	8	7
Completeness of the clean up (ice/snow) after a storm	49	52	8	9
Highway design including curves, grading, width	51	57	6	7
Number of passing lanes	40	46	4	5
Length of passing lanes	41	47	4	5
All pavement markings including yellow/white lines	52	60	8	10
Roadside brush and tree clearing	54	52	7	7
Helpfulness of non-commercial highway signs such as speed limit signs, road exit signs and so forth	62	66	9	8
Amount of non-commercial highway signs such as speed limit signs, road exit signs and so forth	59	63	7	8
Maintenance of non-commercial highway signs such as speed limit signs, road exit signs and so forth	63	64	7	9
Width of highway shoulders	44	47	5	6
Surface condition of highway shoulders	43	45	4	5
Grading /dust control of gravel roads	34	36	4	4
Ditches and culverts	49	52	4	5
Bridges	57	55	7	7

Where are the gaps in highway service?

We can use the information obtained from the 2002 survey results to assist in policy decision making and highway planning. One of the ways to determine service priorities, is to measure gaps that are present between the quality rating that Nova Scotians expressed and what services Nova Scotians consider to be important. An important gap exists when the service is considered to be important and the service expectations of these same residents are not being met. Lower gap scores indicated that service expectations are being met, high gap scores show that there is a problem.

Overall gap scores have increased since the 2001 Customer Satisfaction Survey. The only service that had a decrease in gap score was the width of highway shoulders.

Gap Analysis

Factor	2001 %	2002 %
Amount of four-lane divided highways	56	64
Filling cracks and potholes	80	88
Resurfacing sections of the highway	69	78
Ice and snow removal during a storm	72	82
Completeness of the clean up after a storm	70	80
Highway design, including curves, grading and width	55	68
Number of passing lanes	54	63
Length of the passing lanes	56	67
All pavement markings including yellow and white lines	73	79
Roadside brush and tree clearing	46	55
Helpfulness of non-commercial highway signs such as speed limit signs, road exit signs and so forth	63	71
Amount of non-commercial highway signs such as speed limit signs, road exit signs and so forth	55	66
Maintenance of non-commercial highway signs such as speed limit signs, road exit signs and so forth	58	70
Width of highway shoulders	73	71
Surface condition of highway shoulders	63	72
Grading and dust control of gravel roads	44	53
Ditches and culverts	45	62
Bridges	65	74

The largest gap percentage occurred with respect to **filling in cracks and potholes**. This was consistent with the survey results from 2001. Overall, 88% of Nova Scotians felt that filling in cracks and potholes was a very important service and the department was not meeting the service needs of residents to the highest level. Overall this score has increased by 8% since 2001. Across the province there were only slight differences between gap scores for this service in each district, the scores range from 86% (Western) to 90% (Northern).

The gap score for **surface conditions of shoulders** increased to 72% from a score of 63% in 2001. Central District had the lowest gap score of 69% which is lower than Eastern (73%), Northern (75%) and Western (73%).

The **width of highway shoulders** was the only service that decreased its gap score. In 2001, it was 73% and in 2002 it was 71%. The district scores for this service were fairly consistent, ranging from 70% (Central, Eastern and Northern) to 72% (Western).

Currently, almost nine in ten (88%) residents felt that **all pavement markings including yellow and white lines** was "very important" to them, while 1 in 10 of the same residents felt that the quality of the pavement markings was "excellent". This produces a gap score of 79%, which is 6 percentage points higher than last year's score of 73%. District gap scores ranged from 75% (Western) to 82% (Northern).

The gap score for **ice and snow removal** has increased 10 percentage points from last year to 82%. The gap for **completeness of the clean up** (after a storm) was similar, with a score of 80%.

Resurfacing sections of the highways yielded a gap score of 78%, this has increased from last year when it was 69%.

Eighty-one percent of Nova Scotians indicated that **bridges** were "very important" to them. However, only 7% of these same residents indicated that they felt the Department of Transportation and Public Works was doing an "excellent" job in regard to bridges. This produced a gap score of 74%, up 9 percentage points from last year, when it was 65%.

The gap scores for the **helpfulness, maintenance, and amount of non-commercial signs** were 71%, 70%, and 66%, respectively. These scores had all increased from last year when they were 63%, 58%, and 55%, respectively. Eastern District had the highest gap scores for helpfulness (67%) and amount (63%). Western District had the lowest gap score for the maintenance of non-commercial highway signs.

The gap score for the **amount of four-lane divided highways** showed an increase of 8% over last year's score. It increased to 64%. Western District was the closest to meeting the expectations of residents with a gap score 54%.

Nova Scotians appeared to be moderately satisfied with the **number and length of passing lanes**, these services had gap scores of 63% and 67%, respectively. Gap scores for both of these services have increased by 9% from 2001. Eastern District showed the best scores, 60% and 63%, respectively.

The gap score for **ditches and culverts** increased the most from last year. It increased 17% from last year's value of 45%, to 62% this year. The gap scores for the districts were similar, ranging from Central (60%), to Eastern and Western (64%).

The gap score for **highway design** has increased considerably from 2001. In 2001, it was 55% and in 2002 it was 68%. The gap scores for this service were similar in all four

districts.

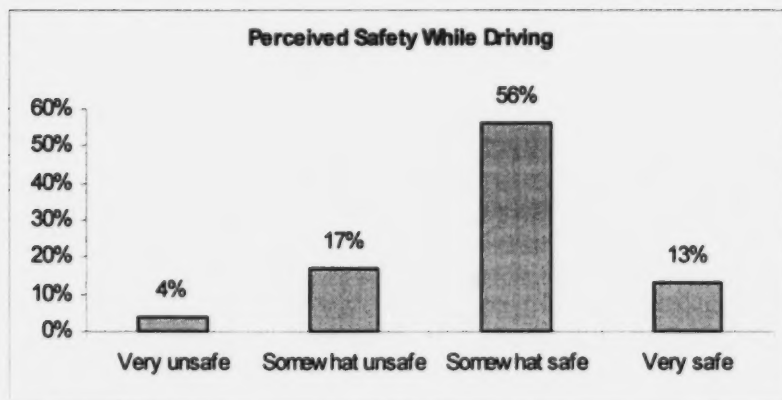
For the most part, **roadside brush and tree clearing**, and **grading/dust control of gravel roads** were satisfactory to the Nova Scotians who were surveyed, with gap scores of 55% and 53%, showing fairly strong service provision in all four districts.

The Gap Analysis provides the department with an accurate and focused tool for making choices on providing highway services in the future. While the department lacks funding to make changes to all areas of service, through incremental improvements to services and better communication of the Department's limitations, we can begin to address the existing gaps in services in a systematic manner.

Safety, Trade-offs, Improvement Priorities and Staff

Safety

Approximately seven in ten Nova Scotians (69%), indicated that they felt "very safe" or "somewhat safe" when driving on the provincial highways. There was no significant difference in how safe Nova Scotians felt while driving, between the results from 2001 and 2002. The survey results suggest that perceived driver safety has the greatest effect on the level of satisfaction with highways in Nova Scotia. The safer a person feels while driving on the highways, the more satisfied they are with the highways.

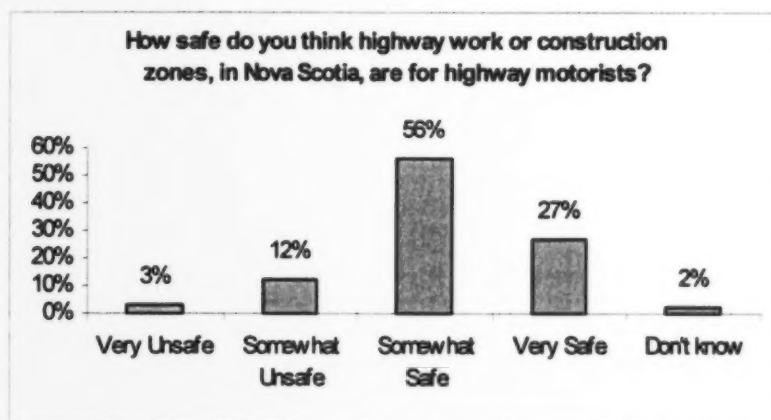


Residents of Western and Eastern Nova Scotia reported the lowest level of perceived safety (68%).

	2002	2001
Central	71%	74%
Eastern	68%	72%
Northern	70%	70%
Western	68%	69%

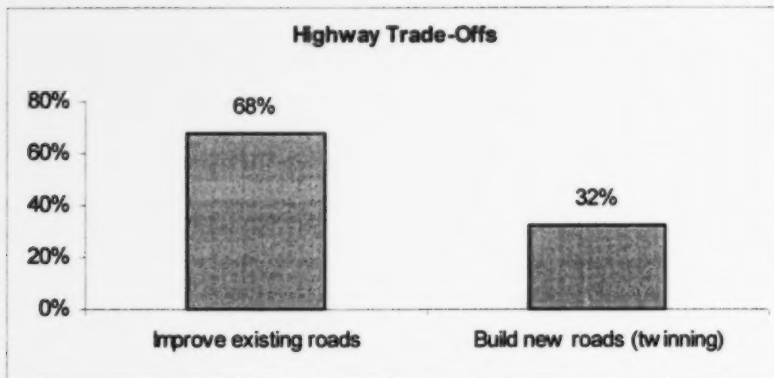
Sixty-one percent of the residents, who stated that they felt unsafe while driving in Nova Scotia, indicated that the reason for this was the overall condition of the roads.

Nova Scotians were also asked to rate how safe they think highway work or construction zones, in Nova Scotia, are for highway motorists. The results suggested that most residents (83%) felt that such work zones were safe for motorists.



Highway Trade-offs

A large majority of the residents in Nova Scotia were in favour of the department making improvements to existing roads rather than building new roads. Regionally, those from the Eastern district (36%) felt more strongly than the Central (35%), Northern (24%) and Western (26%) districts with regard to the building of new roads.



Communications

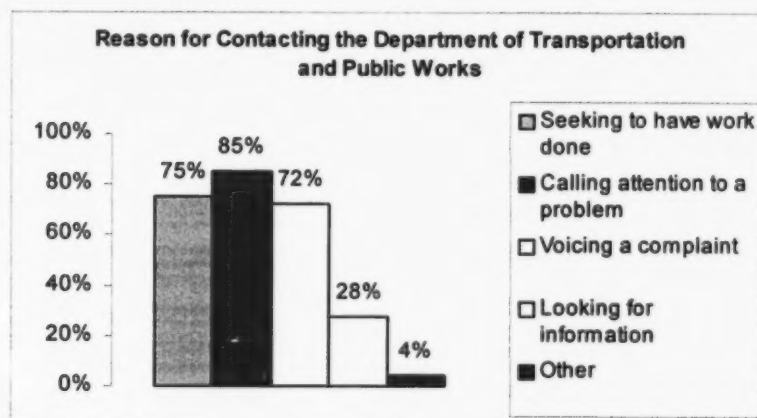
More than half of the residents from Nova Scotia felt that the best ways to communicate about highway construction delays were local radio advertising (56%) and electronic signs approaching construction zones (57%). Thirty percent of residents indicated that advertising in the local newspaper would be the best method of communicating construction delays. Residents of Eastern District felt more strongly about local radio advertising than the other three districts.

Which of the following would be the best way(s) for TPW to communicate to you about highway construction delays?

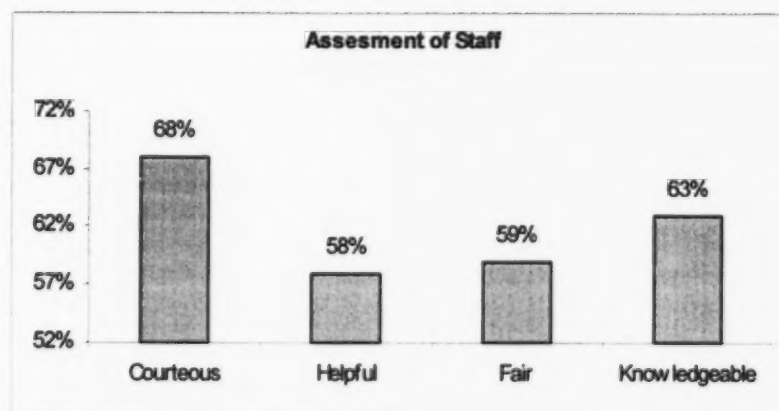
Local newspaper advertising	30%
Local radio advertising	56%
Local television advertising	25%
Department's homepage on the internet	7%
Toll free hotline	6%
Electronic signs approaching construction zones	57%

Staff

Fifteen percent of those who were surveyed said that they contacted the Department in 2002, up from 13% in 2001. They cited several reasons for the contact; in most cases they were calling attention to a problem.



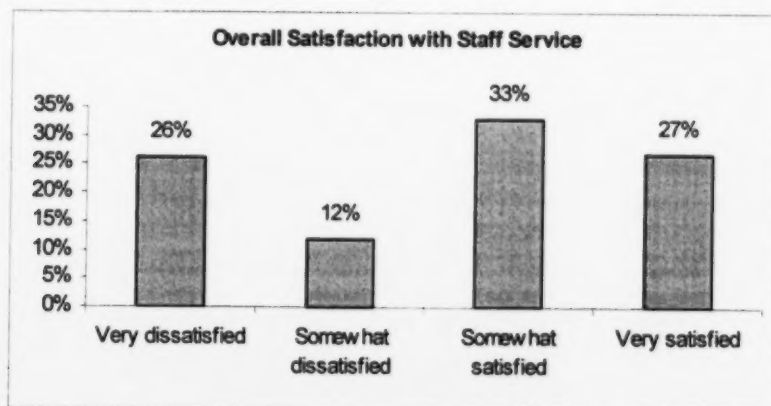
Most of the residents who contacted the department gave positive ratings⁶ to the staff for being courteous, helpful, fair, and knowledgeable. Staff courtesy received the highest rating at 67%, with 48% indicating "good" and 20% "excellent".



Six in ten Nova Scotians, who contacted the department within the past year were

⁶ Assessment of Staff ratings include Good and Excellent combined.

somewhat satisfied (33%) or very satisfied (27%) with the service provided by the staff.



The main reason that Nova Scotians felt dissatisfied with the services provided by the department staff was due to "Not dealing with the problem".

How is this information used?

This Customer Satisfaction Survey assists the Department of Transportation and Public Works in several ways. The survey results are used to:

- Assist TPW in finding ways to improve service delivery; for example, formulating service standards
- Report on TPW's performance in the area of customer satisfaction as part of the government-wide outcome measurement process
- Support departmental planning and decision making

The identification of gaps between the level of service customers expected and what they believed they received, revealed a number of service areas in which improvements could be made. This analysis provides the Department of Transportation and Public Works with a reliable tool for making choices on providing highway services in the future. Improvements in service delivery may be limited, due to budgetary or other constraints. However, through incremental improvements to services and by communicating the department's limitations TPW can begin to work toward addressing the existing gaps in services in a systematic manner.

